	WHY is this information needed?	**WHAT** information is needed?	**WHEN** does this information need to be entered into RIMS?	**WHO** enters the information into RIMS?	**WHO** is the end user?	**GUIDANCE:**
A – SPEED ZONES	Provides database for Maintenance of existing and new Speed Zones.	•Highway •Direction •From and To Reference Points and Offsets •Side of Road – Left or Right •Day Speed •Night Speed •Special Speed Limit Zone – Yes or No •Remarks	By completion of construction project and prior to opening roadway to public traffic.	Programming Division	Design Division are primary users as well as multiple divisions and districts throughout the NDDOT.	•Programming Division to manage Speed Zone database in RIMS.
	Notes:					
B – GUARDRAILS	Provides database for maintenance of existing and new guardrail.	•District •Highway •Direction •From and To Reference Points and Offsets •Length (Feet) •Position Code – Left, Right, Median or Center of Roadway, etc. •Maintenance Responsibility – NDDOT, County, City •Latitude •Longitude •Date Installed •Construction Code – Concrete Jersey Barrier, W-Beam, Box Beam, etc. •Post Material – Steel Tube, I-Beam, Wood, Concrete, etc. •Post Spacing (Feet) •Rails/Cables – Number, Height Bottom, Height Top, Distance to Centerline •Approach End – Three Cable Anchor, Safety Shape, Thrie to W-Beam, etc. •Terminal End - Three Cable Anchor, Safety Shape, Thrie to W-Beam, etc. •Hazard Code – Bridge, Drainage Feature, Fixe Object, Embankment, Gore, etc. •Remarks	At the conclusion of Construction Projects or Maintenance Actions.	District Construction and Maintenance Staff	Design Division are primary users as well as multiple divisions and districts throughout the NDDOT.	• District Construction and Maintenance Staff to manage Guardrail database in RIMS.
	Notes:					
C - CENTERLINE PIPE	Provides information for maintenance of existing and newly constructed pipes.	•District •Highway •Direction •Reference Point and Offset •Latitude •Longitude •Type – Corrugated Steel, Double Box Concrete, Reinforced Concrete Pipe, etc. •Diameter (Inches) •Arch (Inches) •Length (Feet) •End Type – Continuous, Flared, None •End Elevations – Left, Right •Remarks	At the conclusion of Construction Projects or Maintenance Actions.	District Construction and Maintenance Staff	Design Division are primary users as well as multiple divisions and districts throughout the NDDOT.	• District Construction and Maintenance Staff to manage Centerline Pipe database.
	Notes:					

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D - CURVE	Provides information for maintenance of existing and new constructed vertical and horizontal curves.	•District •Highway •Direction •Reference Point and Offset •Type – Vertical or Horizontal •Vertical Curve - Curve Length, Curve Elevation •Horizontal Curve – Curve Length, Spiral Length, Degree of Curve, Super Elevation •Direction Change (Degrees and Minutes) •Latitude •Longitude •Remarks	Undetermined	Undetermined	Undetermined Design Division would like to use CURVE data but it does not appear to be up to date.	•DISCONTINUE maintaining Curve Information database in RIMS. The universal distrust that is emphasized by the department RIMS users gives curve information a lack of credibility. It is certain that the curve data is not routinely brought up to date and it is well known that designers turn to old plan sets for accurate and up to date vertical and horizontal curve survey data. Design would prefer the Horizontal Curve data base to include Spiral Length, Curve Length, Curve Radii, Superelevation and do not need Direction Change (Degrees and Minutes), Latitude and Longitude.
	Notes: • The curve data currently in RIMS appears to be from old grading plans. • Grand Forks and Dickinson Districts do not update curve information. • Districts were informed that the Bismarck Central Office updates the horizontal and vertical curve survey information. This has been verified to be not true. • Districts do not update curve information. In turn this makes it difficult to trust what information there is. • Updating all curve data would be difficult and extremely time consuming. • Designers utilize existing plan sets or new surveys making the information in RIMS irrelevant. • The Districts would likely conduct a new survey for accurate curve data.					
E - FENCE	Provides information for maintenance of existing and new fencing.	•District •Highway •Direction •From and To Reference Points and Offsets •Position Code – Left or Right •Length (Feet) •Type – Barbed Wire, Woven Wire, Chain Link, Cable •Displacement – 1, Displacement – 2 (Feet) •Latitude •Longitude •Remarks	At the conclusion of Construction Projects and Maintenance Actions.	District Construction and Maintenance Staff	The Districts appear to be the primary end users for the fence database.	•Districts to manage Fence database in RIMS. Some districts see value in keeping fence information in RIMS whereas other districts do not see a huge need to track fence information.
	Notes: • Grand Forks District does use fence information and regularly updates fence information. • Actual process to keep fence up to date is not labor intensive since it rarely changes. • Flooding events and fires cause many changes in Grand Forks District ROW fence inventories. • Dickinson District only monitors and department owned fence on I-94 and segments on ND 16.					
G - LIGHTS	Provides information for maintenance of existing and new lighting systems.	•District •Highway •Direction •Reference Point and Offset •Position Code – Left or Right •Type - Light Standard or Tower Lighting •Displacement (Feet) •Latitude •Longitude •Remarks	At the conclusion of Construction Projects and Maintenance Actions.	District Construction and Maintenance Staff.	There appears of be multiple end users for this category that may include but not be limited to Programming Division, Design Division, Maintenance and Districts.	•Determine who is going to be the guardian of the Lighting Information. •Is it going to be the Districts, Design Division, Programming Division, Planning Division, or Maintenance Division? It has been suggested that Design Division be the quardian of Lighting, they are the ones they know which projects have lighting in them. •There is a need to capture lighting asset data. The guardian of it might depends on how the data is captured and stored in the future beyond RIMS. •Districts to manage RIMS database regarding all new construction lighting and all lighting maintenance activities. •Continue to maintain current lighting database in RIMS.
	Notes: Programming Division, Maintenance Division along with the Fargo, Devils Lake, Grand Forks and Dickinson Districts sees value and wants to keep Lighting in RIMS. The majority consensus of this group is that Design Division should be the steward of Lighting in RIMS.					

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H – INSLOPE RATIO	Provides information for maintenance of existing and new In-Slopes.	•District •Highway •Direction •From and To Reference Points and Offsets •Position Code – Left or Right •Length •Latitude •Longitude •Remarks	Undetermined	Undetermined	There does not appear to be any end users relying upon this in-slope ratio database.	•<u>DISCONTINUE</u> maintaining Inslope Ratio database in RIMS.
	Notes: • Database does not appear to provide usable information regarding in-slopes on highways, and there does not appear to be a recognizable need. • Difficult to trust what is currently in the database. • To get in-slopes database up to date would be very time consuming. • Information does not appear to be relative to what we need these days. • In addition, cannot seem to make sense of what information is being presented in RIMS. • Districts have not been updating the information and prefer not to pursue this into the future.					
I – REMARKS	Provides information for maintenance of existing and new approaches.	•District •Highway •Direction •Reference Point and Offset •Association Code – Frontage Road-Left, Frontage Road-Right, Side Road, etc. •Remark Type Code – Private Approach, Section Line Approach, Field Approach, etc. •Street/Approach Width (Ft) •Turn Lane Length (Ft) •Latitude •Longitude •Remarks – Right or Left, Intersecting Roads Identification, Approach Permit Info.	By the completion of construction projects that include new approaches. When a new approach is added based on the permitting process.	Districts	There appears to be multiple end users.	•Districts to manage Approaches database in RIMS. •Change database name to APPROACHES. •Upgrade database to provide additional useful information.
	Notes: • Approach information should be kept in RIMS. • More complete and concise information should be provided within the database. • Indicate if approaches are permitted or original construction. • Include permit number and what was permitted. • Link the RIMS approach information to RIMS Viewer so that it can be accessed on GIS.					
J – RIGHT OF WAY	Provides information for maintenance of existing and new Right of Way.	•District •Highway •Direction •From and To Reference Points and Offsets •Position Code – Left or Right •Length (Feet) •Displacement 1 (Feet) – R/W at the FROM Reference Point and Offset •Displacement 2 (Feet) – R/W at the TO Reference Point and Offset •Latitude •Longitude •Remarks	Undetermined.	Undetermined.	Design Division are primary users as well as multiple divisions and districts throughout the NDDOT. Consensus among design staff is that they rarely use ROW in RIMS. They primarily use R/W plats or grading plans.	•**<u>DISCONTINUE</u>** maintaining Right of Way in RIMS. •If ROW data is kept, there should be a designated data guardian or steward to ensure quality.. •Determine who should manage the ROW database in RIMS. Could it be ETS, Survey, or Design? •Should the Department continue to maintain Right of Way database in RIMS and coordinate with ETS to ensure that database is accurate and up to date. •Keep in mind that ROW folks do not speak reference point language. •Make sure the ROW info matches road information regarding legal descriptions and reference point descriptions. •Design currently uses ROW plats to determine limits on projects and would use the ROW database if others want to accurately maintain it. •Consider getting new ROW information entered to RIMs during the design phase.

	Notes: • ROW data rarely changes and would not be difficult to keep track of since it changes very little. • Districts currently do nothing regarding updating ROW information and do not know if past ROW changes have been updated into database. • Districts rarely get involved with RIMS Right-of-Way information and only gets involved when ROW changes due to land purchase. • Districts do not do anything with temporary easements. • Design Division and Districts believe ROW data has value and prefer that the ROW database remain in RIMS. • Consensus is that there is an entire Right-of-Way group in ETS that should be maintaining those activities in RIMS. **Comments from Mark Gaydos – ETS, January 3, 2021:** 1) I would recommend that the present use of right of way information in RIMS be discontinued. 2) The information in RIMS does not come from source or native data and must be manually converted. I assume at the time this started there was only on set of right of way plats. They are now online. 3) The right of way plats provide limited information and would require substantial work to compute reference point and offset. 4) The construction plans for some types of projects with survey information contain a table with northing-easting and station-offset for the right of way corner points. It may be that reference point and offset can be added. 5) The Rim Viewer appears to place the reference point and offset based on some form of the roadway centerline. This data would also need to be maintained. 6) ETS does not input or manage any input into this database. I don't know who does or when it was last updated. 7) I would suggest this is not the best method to maintain this data as it is not generated in a reference point system. Survey has specific coordinates for each county.					
	WHY is this information needed?	**WHAT** information is needed?	**WHEN** does this information need to be entered into RIMS?	**WHO** enters the information into RIMS?	**WHO** is the end user?	**GUIDANCE:**
K – SIGHT DISTANCE ANALYSIS	Provides information for Barrier Stripes & Stopping Sight Distances	•District •Highway •From and To Reference Points and Offsets	Prior to the conclusion of the design process.	Design.	Design Division are primary users as well as multiple divisions and districts throughout the NDDOT.	•Design Division to manage the Sight Distance Analysis database in RIMS.
	Notes: • Programming Division (Traffic Operations Section) finds this RIMS inventory information useful. • It is uncertain that barrier stripes and stopping sight distances are routinely updated in RIMS making barrier stripe data in RIMS unreliable. • Sight distance analysis for barrier stripes and stopping sight distances from new design plans should be completed and verified by the designers and updated within RIMS. Questions: • Who uses the sight distance analysis information the most? • Is the information maintained in the database accurate and do the users trust the sight distance information?					
L – RUMBLE STRIPS	Consensus is that Rumble Strip information is no longer needed.		n/a	n/a	n/a	•DISCONTINUE maintaining Transverse Rumble Strips, Centerline and Edge-line Rumble Strips database in RIMS.
	Notes: • Centerline, edge line, and transverse rumble strips are placed by NDDOT Policy. • There is no need to continue center line and edge line rumble strips in RIMS since all state highways are mandated by policy.					